

WHAT IS CLAIMED IS:

1. A multi-charged beam lens constituted by stacking,
via insulator members along an optical path of a charged
beam, a plurality of electrodes having a charged beam
5 passing region where a plurality of charged beam apertures
are formed, comprising in a pair of electrodes which
sandwich the insulator member:

an aperture which is formed between the charged beam
passing region and the insulator member in a surface of at
10 least one electrode that faces the other electrode; and

a conductive shield which enters the aperture and is
arranged between the charged beam passing region and the
insulator member without contacting the electrode having
the aperture.
- 15 2. The lens according to claim 1, wherein

all the plurality of electrodes have through holes
as the aperture, and

the conductive shield extends through the through
holes of all the electrodes.
- 20 3. The lens according to claim 2, wherein the plurality
of electrodes and the insulator members interposed between
the electrodes are integrated by a clamp.
4. The lens according to claim 3, wherein a position
where the clamp clamps the plurality of electrodes includes
25 a position where the insulator members are aligned in a
stacking direction.
5. The lens according to claim 3, wherein the conductive

shield is fixed to the clamp.

6. The lens according to claim 1, wherein the conductive shield includes a metal.

7. The lens according to claim 1, wherein

5 the conductive shield is formed as a projection on one of the pair of electrodes out of the plurality of electrodes, and

the conductive shield enters the aperture of the other electrode.

10 8. The lens according to claim 1, wherein

the plurality of electrodes include a first electrode having a through hole as the aperture, and two second electrodes which sandwich the first electrode and has projections as the conductive shield, and

15 the projections of the second electrodes contact each other via the through hole of the first electrode.

9. The lens according to claim 1, wherein

at least one of the pair of electrodes has a projection as the conductive shield, and

20 the other electrode has a recess as the aperture in a region including a portion nearest to the projection.

10. The lens according to claim 9, wherein the shield exists around the optical path of the charged particle beam.

11. The lens according to claim 9, wherein the shield
25 includes shields axially symmetrical about the optical path of the charged particle beam.

12. The lens according to claim 9, wherein at least one

of the plurality of electrodes has both the projection and the recess.

13. A multi-charged beam lens comprising:

at least three electrode substrates each having a
5 plurality of apertures for transmitting a charged beam; and

a coupling portion which couples at least two electrode substrates that receive a common potential out of said at least three electrode substrates,

wherein the coupling portion is so arranged as not
10 to contact the electrode substrate which receives a potential different from the common potential out of said at least three electrode substrates.

14. The lens according to claim 13, wherein the coupling portion includes an adhesive.

15. The lens according to claim 13, wherein the coupling portion includes

a fixing member, and

an adhesive which adheres the fixing member and said
at least two electrode substrates that receive the common
20 potential.

16. The lens according to claim 13, further comprising insulator members which are interposed between said at least three electrode substrates so as to position said at least three electrode substrates.

25 17. The lens according to claim 16, wherein

said at least three electrode substrates have positioning grooves, and

the insulator members are arranged in the grooves.

18. The lens according to claim 13, wherein the coupling portion is formed from a conductive material.

19. A charged beam exposure apparatus comprising a
5 multi-charged beam lens defined in claim 1,

wherein a pattern is drawn on a substrate with a charged beam from the multi-charged beam lens.

20. A device manufacturing method comprising steps of:
drawing a pattern on a substrate coated with a
10 photosensitive agent by a charged beam exposure apparatus defined in claim 19; and

developing the substrate bearing the pattern.